

March 2, 2009
Testimony Submitted by:
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Board Member: Healthy World Healthy Child &
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It's confusing to me that we can allow our children to play on ground rubber recycled tires, which were formerly classified as hazardous waste. As a mother of two young children who are already playing organized sports, I am faced with the very real possibility that they will be playing on synthetic turf athletic playing fields that use ground rubber recycled tire crumbs which are on the surface of the fields by the tons - 100 tons per field I've been told. Ironically, our kids' parks and playing fields, where children should be the safest are now posing a threat to their health and wellbeing.

It's a perfect example of how industry can rush products to market with no oversight by government, no testing on human health or the environment, and end up mostly used by our children on their playing fields. PS: It's made of hazardous waste.

At risk are our children - unconsenting test subjects in a massive experiment. Currently over 125 million children suffer from cancer, autism, asthma, birth defects, ADD/ADHD and learning and developmental disabilities. Scientific evidence increasingly points to environmental chemicals as contributing to many of these diseases. More than 85,000 chemicals are currently in use in the marketplace today. Many we find in our homes and only about 4,000 of them have been tested for potential toxicity to adults, much less children.

Dr. Philip Landrigan, head of Mount Sinai School of Medicine's Children's Environmental Health Center reminds us that children have a unique vulnerability. Their organs are still developing and their most rapid cellular development is from conception to age 6. Pound for pound they breathe more air and consume more than adults. Because of their behavior they are more at risk too - putting hands in their mouths and being closer to the ground.

Grassroots organizations have worked hard to have pesticide use banned in places where they are unnecessary. In Connecticut, a ban is currently in effect to disallow the use of pesticides in day care centers and elementary schools.

But there's a new monster on our doorstep. We're going from the frying pan and into the fire and the proliferation of synthetic turf athletic fields have made the use of pesticides child's play. Across the country, schools and parks are replacing grass playing fields with the synthetic turf. There are over 3,500 fields in the US today and growing at a rate of 20%.

And athletic fields are just the beginning of this story. Recently the LA Metropolitan Water authority offered a rebate to its residential customers who install synthetic turf in the yards using the same technology (crumb recycled tire rubber). In an article posted on FieldTurf's website, one of the nation's leading providers of this product, the owner of the California distributorship is quoted as saying, "I have seen the future, and it is (synthetic) turf!"

Here are the main reasons as parents, as a community and as a nation we should be concerned:

Initial Research Shows: Junfeng Zhang, a professor of environmental and occupational health at the Rutgers University and Environment and Human Health, Inc. (EHHI, www.ehhi.org) have found that the granules contain worrisome levels of zinc and lead which are neurotoxic. Also found were polycyclic aromatic hydrocarbons (PAH's) that are known to be carcinogenic and attributed to asthma. Humans, especially children should not be in contact with these harmful substances, due to their unique vulnerability. Zinc, cadmium and lead were shown to leach into ground water and soil, which are neurotoxic to humans and harmful to aquatic life, in addition to being phytotoxic. (Which potentially could mean that if a field were removed, it would be hard to grow new grass where leaching had occurred.)

Stats: A 300-foot-long field that is 150-feet-wide is 45,000-square-feet, holding more than 450,000 pounds of ground-up rubber tire. The typical athletic game has 25 people playing vigorously on the surface for one hour or more. If a field were used for three hours a day there would be 21 hours of activity a week. That would amount to about 2,000 children/hours of activity a month on each field. It is possible that even on a modestly utilized field, there would be over 10,000 children/hours of use per year.

In addition:

- The Heat Effect: Temperatures have been recorded at over 160 degrees which can present a real problem in young children due to heat exhaustion and dehydration. (Grass can actually lower the ambient air by 6 degrees. Have you ever sought refuge from the summer heat by sitting in the cool grass under a tree?)
- Grass and the trees that surround playing fields provides habitat for thousands of living creatures.
- CT Public health officials identified that "turf burns" provide an increased risk to athletes for the antibiotic resistant staf infection, MRSA.
- The cost of a new synthetic turf playing field is anywhere from \$750K to \$1.6 million and must be replaced every 10 years. Replacing a whole field with sod is about \$100K.
- Maintenance cost per square foot for synthetic turf is in excess of \$10, whereas grass/sod is less than \$1.00.

- Injuries – velocity of ball and turf burns much greater on synthetic turf, in addition to increase sprains and ligament injuries. The number of ACL injuries in young women, especially, has increased dramatically.
- Questionable fundraising tactics in Westport include creating a 501c.3 to allow parents from booster clubs and soccer, lacrosse and football associations the ability to donate money tax free, which means total emotional “by-in” by these generous families in wealthy communities. This money was brought to the municipality to take the \$750,000 cost per field out of the decision making equation.
- Organic grass turf field management, by my own estimates, cost around \$30K for the first year. Once the facilities manager is trained, and organic methods are used over a 3 year period, the cost decreases year after year. The grass is stronger, using a variety of fescues, with deeper root systems and the ability to ward off disease more readily using organics.

I encourage you to read “A Silent Spring” by Rachel Carson, the biologist who coined the term the “body burden”. Her message is that our bodies can not tolerate the onslaught of chemical exposures that we subject them to daily, without there being some price to pay.

Or read the new book by Mark Schapiro, of the Center for Investigative Reporting called “Exposed” which tells the story of how toxic chemicals in every day products can be marketed in the US with no oversight by government. In Connecticut last year, our legislature proposed a ban on BPA, a toxic plastic hardener, in kids’ products, only to be visited by a posse of Lego Company lobbyists who killed the bill. Upon leaving the Capital they admitted they already produced a BPA free product for the EU!

And finally, Dr. Bill Crain, a developmental psychologist and professor at City College in NYC says, “There’s a growing body of research suggesting that children need contact with greenery for their mental development. Natural settings help them develop their senses and powers of observation. Nature also stimulates children’s creativity; much of their poetry and artwork, for example, is inspired by grass, trees, water, wind, birds and other animals. Furthermore, natural settings have a calming effect on children.”

The following are trends in children’s health, excerpted from The State of Children’s Health and Environment 2002, *John Wargo, Ph.D., Professor, Yale University and Healthy Child Board Member and Linda Evenson Wargo, M.E.S.*

-Nearly 5 million U.S. children suffer from asthma, and rates have increased rapidly over the past several decades. (2007 update: over 6.1 million children now suffer from asthma)

-Childhood cancer rates have increased gradually and with consistency for many forms of the disease, while increasing most rapidly for leukemia (ALL) and cancers of the central nervous system (brain tumors).

Birth defects continue to be the primary cause of infant mortality. Nearly 1 of every 28 babies is born with a birth defect.

-Nearly 17% of children less than 18 years in age have been diagnosed with at least one developmental disorder. (autism, mental retardation, and Attention-Deficit/Hyperactivity Disorder.)

-Between 3-5% of children in the U.S. have Attention Deficit and Hyperactivity Disorder (ADHD) and the incidence may be on the rise. Visits to office-based physicians for pediatric ADHD-related concerns increased by 90% between 1989 and 1996. The use of stimulants such as Ritalin to treat ADHD in children rose 14% during this same period. (The number of children with ADHD has risen to 7.8%, affecting 4.4 million children.)

-The nervous systems of more than one million children are irreversibly damaged from exposure to lead, primarily from exposure to deteriorating paints.

What we know about lead (Just one of the toxic substances found in crumb rubber).
Quote from www.cehcenter.org by Philip J. Landrigan, MD, MSc, DIH, Professor & Chair, Department of Community and Preventive Medicine, Professor of Pediatrics, Mount Sinai School of Medicine, New York, NY 10029, USA.

- Lead is a highly toxic chemical and brain injury is the most serious consequence of pediatric lead poisoning.
- Young children are especially vulnerable to lead because their brains are rapidly growing and developing, and because their normal hand-to-mouth behavior increases the risk that they will take lead into their bodies from the environment.
- Acute, high-dose poisoning, as can occur when a child swallows chips of lead paint, can cause convulsions, coma and even death. Children who recover are often left severely damaged.
- Lower dose exposure can cause loss of IQ, shortening of attention span and disruption of behavior as well as increased risk of dyslexia and school failure. This is described as "silent lead poisoning." -
- Despite great reductions in lead exposure in the USA, silent lead poisoning still affects more than 250,000 1-6 year-old children.

At the root of the issue, is that there's a lot of money to be made without consideration to those who can't decide for themselves what's safe and what's not safe. Our kids want to "make the team" or be a football star. Who am I to tell my son he can't play football?! As a parent, we should not be put in the position to have to protect our children from threats like these.

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